

## TITLE

5 Ion Detector Array Assembly and Devices Comprising the Same

## ABSTRACT OF THE DISCLOSURE

10 A spectrometer assembly comprising an ion detector array and a printed circuit board, wherein the ion detector array is attached on the printed circuit board, and the printed circuit board is secured on the same base plate that a magnetic section is secured. This configuration presents many advantages including, but not limited to, sturdy and  
15 convenient electrical connections between the assembly and following processing units, as well as mounting accuracy of the ion detector array in miscellaneous devices, and especially in front of magnetic sectors of spectrometers of the Mattauch and Herzog type. This invention pertains any types of ion detector arrays, with special emphasis to Strip Charge  
20 Detector Arrays, Faraday Cup Detector Arrays, and even more importantly to Shift Register Based Direct Ion Detection Chips. The present invention further pertains Mass Spectrometers (MS), combination of Mass Spectrometers with other Mass Spectrometers (MS/MS), as well as combinations of Gas Chromatographs with Mass Spectrometers (GC/MS),  
25 as long as they comprise the Detector-PCB of this invention.